Departments

Special Reports

A New Center of Scientific Excellence in Asia

G. P. Yeh

Okinawa [1], a beautiful paradise with an area of 1,200 km², is one of the Ryukyu Islands between the East China Sea and the Pacific Ocean. Geographically in the center and close to Tokyo, Osaka, Seoul, Beijing, Shanghai, Hong Kong, Manila, Taipei, and other major cities in Asia, Okinawa is ideal for international gatherings and activities. The new Okinawa Institute of Science and Technology (OIST) [2] and other educational and cultural initiatives will establish Okinawa as a new center of excellence for research and education in Asia.

In 2001, Mr. Koji Omi, then Minister of State of Japan for Science and Technology Policy and also for Okinawa and Northern Territories Affairs announced the plan to create in Okinawa a new graduate university. In April 2003, the people and governments of Okinawa donated the land with an area of 2. 89 km² along the East China Sea in the beautiful Onna [3] resort village to be the campus site.

The main goal of OIST is to establish one of the best graduate universities in the world. The best universities [4], e.g. MIT, Caltech, Stanford, Cambridge, Oxford, Berkeley, and Harvard, are among the best in all the major scientific fields: physics, chemistry, biology, mathematics, nanosciences, and computing.

Since the beginning of this project, the Objectives of the university have always been a graduate university of science and technology in Okinawa with the world's highest level of scientific and academic excellence to:

1. Make Okinawa the leading intellectual center in Asia-Pacific region.

Professor G. P. Yeh
Fermi National Accelerator Laboratory
MS 318
Batavia, IL 60510, USA
Email: gpyeh@fnal.gov

- 2. Contribute to global advancement of science and technology.
- 3. Make this university "a success story," an impetus for the reform of Japanese universities. The Basic Concepts of the university have been: Best in the world, International, Flexible, Global network, Collaboration with industry.

OIST has the strong support of Governor Keiichi Inamine and everyone in Okinawa, Prime Minister Junichiro Koizumi, Minister Toshimitsu Motegi and other leaders of the Japan Government, 14 Nobel Laureates including Professors Jerome Friedman, T. D. Lee, Leon Lederman, Steven Chu, Sydney Brenner, Susumu Tonegawa, David Baltimore, and many other scientific leaders in Japan and worldwide including Professors Akito Arima, Kiyoshi Kurokawa, Richard Dasher, and Richard Newton.

The single most important challenge for OIST is to be international. The Board of Directors, the administration, professors, and graduate students all must be international, to have the best people from the world. Governor Inamine of Okinawa has said: "even 100% international would be OK." The school year will start in September. English will be the main language on campus.

The current plan for OIST is to have about 300 professors, 900 postdoctoral researchers, 1,000 technical and administrative staff members, and 500 graduate students. The budget is 100 billion yen (about \$900 million) for Construction, and 30 billion yen for Annual Operations. Initial funding began in 2003 for preparatory work, including international symposium [2]. OIST hopefully will start by September, 2008. For reference: At MIT [5], 36% of the 6,200 graduate students, and 8% of the 4,100 undergraduate students are from 106 foreign countries, with 974 Faculty members, and total teaching staff of 1,558 in 28 Departments. At Caltech [6], 25% of the 900 undergraduate and 1,200 graduate students are from 68 countries, with 56% of the 560 Postdoctoral scholars from foreign countries, and 275

Orientation maps







<u>大学院大学の建設予定地</u>

Professorial faculty, 65 Research faculty. Most major universities in the U.S. are very international.

Science should be international. Although Fermi Lab is a National Laboratory, it is international with the best talents from 100 universities/laboratories in the U. S. and 100 institutions from 30 other countries. While almost all of the funding for Fermi Lab is from the Department of Energy of the U. S. government, Fermi Lab is operated by the Universities Research Association, under contract from the U. S. Dept. of Energy, thus enabling Fermi Lab to be more flexible. At the European Organization for Nuclear Research (CERN), 6,500 visiting scientists collaborate from 500 universities in 80 countries. In 1990, the World Wide Web was invented at CERN because the physicists wanted to share the data world wide. Many scientific break-throughs have resulted from international collaborations.

The best universities are also very flexible, with the sense of "everything is possible." Flexibility is essential to enable the best people, including students, to do the frontier research, without unnecessary limitations or rigid man-made rules. The best ideas should flourish, independent of the proponent's rank or position. Like MIT, Caltech, and other best institutions, OIST will openly provide the most advanced facilities together with international research environment, and should simply let the talents from the world freely create the best science and technology with inventions and new discoveries.

The leaders and the Government of Japan have greatly emphasized the importance of science and technology. For research and development, Japan's Basic Plan for Science and Technology included 17 trillion yen for the 5 years 1996-2001.

The actual budget was 17.6 trillion yen, which was 40% increase over the previous 5 years. The budget planned for 2001-2006 is 24 trillion yen (about \$220 billion), an increase of 36% over the previous 5 years. OIST, to be one of the world's best graduate universities, will help to bring and achieve the best science and technologies.

Okinawa Institute of Science and Technology and Okinawa look forward to welcoming the best people from the world, collaborations with the Asia Pacific region and worldwide, and the great [8], exciting science and technology in the future.

REFERENCES

- [1] www.summit-okinawa.gr.jp/a_la/map/index2.htm www.ocvb.or.jp/en/discover_oki/index.html
- [2] vmsstreamer1.fnal.gov/VMS_Site_02/Lectures/Colloquium/Yeh/vf001.htm www.okinawasympo2003.jp/what/index.html
- [3] www.vill.onna.okinawa.jp www.nasda.go.jp/lib/nasda-news/2003/09/back_e.html www2.nict.go.jp/dk/c218/EN/MAP/index.html
- [4] www.usnews.com/usnews/edu/grad/rankings/ rankindex_brief.php www.usnews.com/usnews/edu/grad/rankings/phdsci/ phdsciindex_brief.php
- [5] web.mit.edu/newsoffice/nr/2001/nobels-eight.html web.mit.edu/facts/
- [6] www.caltech.edu/at-a-glance/
- [7] www.ura-hq.org
- [8] e.g. www.fnal.gov/pub/news02/slac_pressrelease.html www.desy.de/pr-info/desyhome/html/presse/meldungen/ PM_XFEL_Standort_e.html